## 1Rhodora

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## THE OLD-TIME FLORA OF PROVIDENCE.

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It is always most interesting, when possible, to learn the former plant life of a great city. Especially is this so when one has himself collected over the same ground at a later date. His surprise and delight are uncontrollable, to ascertain the presence of some essentially wild species on what is now a crowded thoroughfare, or where at present is located a public building.

Thus, Dr. John Torrey, the noted co-worker with Dr. Asa Gray, kept a record of the plants growing in New York City, and the vicinity, some eighty years ago. It is funny enough to read to-day — when the original city extends into Westchester, and when the Greater New York has embraced Brooklyn and Staten Island — of the wildernesses teeming with wild-flowers in the suburban regions of Canal Street and Union Square.

Fortunately, without the same intention, indeed with none but to make a passing note for his own benefit — with no attempt at thoroughness even, — my father, when a young cadet at West Point, kept on his visits home to Providence a record of what he there found. He entered the Military Academy in 1828, graduating in 1832, and the record contains dates to 1837 — at which time he was professor in his alma mater.

The book he employed as a manual in those days was the well-known *Florula Bostoniensis* of Bigelow. It is now in my possession, and is indeed a precious heirloom. It is, of course, arranged on the Linnaean system, in which no attention is given to natural affinity. There were no illustrations, but these were added by my father from time to time, in neat, shaded pencil-drawings, the outline often being

in ink. Many of these sketches are really beautiful. Even the printed pages are employed as a medium for illustration.

In viewing the "finds" of those long-ago days, one must consider the very different topography that then existed; also that our waters were formerly quite undefiled. Remember, for instance, that the cove was a natural estuary of tolerably pure water, in which one could bathe, and around which grew many littoral plants. To the north there were sloping banks, leading up to the extensive pine-forest on Smith's Hill. Indeed, I myself recall such conditions. Near the Vitriol Works, as late as 1868, I gathered such plants as Leucothoe racemosa, Gray, Rhododendron viscosum, Torr., and Cephalanthus occidentalis, L.

Again, even in my day, Long Pond, now filled in, was a charming collecting ground, and it was only the other day, as it were, that a new causeway throttled Greater Benedict Pond. Many fine things used to grow there, among them *Plantago Virginica*, L.

When I first knew Leonard's Pond, in the tenth ward, it was not even in the city, and only a very few houses were in sight. Now a dense population is gathered near it. Here I used to go for *Epigaea repens*, L., and *Cypripedium acaule*, Ait. In Bradley's Swamp nearby, almost up to the seventies, grew a patch of *Rhododendron Rhodora*, Don.

About Wanskuck, now a populous factory-village suburb of the city, was a wild wood, and a most delightful and romantic walk extended along the west bank of Randall's Pond, the earliest haunt of the Mayflower.

Cat Swamp, the Mecca of Botanists, was, even in my day, inviolate. Fortunately its flora was collected by many acute observers, and colored drawings made by a Mr. Peckham. These I learn are still accessible.

Slate Rock, sacred to Roger Williams, was, when I was a boy at the University Grammar School, still in part surrounded by water. We youths bathed from it where the water would now insure prompt asphyxiation. A clear, lively brook babbled through and gave its name to Brook Street. I remember it was open between Power and Williams St., by the residence of Chief Justice Ames. Charming groves extended to the river-side below the Rhode Island Hospital—where were the park-like grounds of G. W. Rhodes. Various gashouses and power-works have usurped the place of these rural attractions. North of Angell Street, on College Hill, houses were few and

far between. Even on the University grounds, what is now known as the "Back Campus," contained a prolific swamp, well within the time limits of my own teaching.

The banks of the Seekonk have so changed as to be wholly unrecognizable. Beautiful forests, groves of laurel, meandering trout brooks, banks gay with lupines and azalea, sands gushing with violets, swamps, copses, and fens, presented a delightful and rural variety. Nothing is left of all this but a sweet and imperishable memory.

Now let us revert to the still older days of 1828 and see what is recorded. I might note in passing, that there was at that time in Providence a group of able and enthusiastic young botanists, among whom we find the names of S. T. Olney, George Hunt, Jesse Metcalf, A. L. Calder, George Thurber, and J. W. Bailey. These men, though afterwards in part scattered, always kept in communication with each other, and all had a deep pride in Rhode Island.

I again direct attention to the Linnaean arrangement of Bigelow to account for the random way in which this record will appear. I copy the notes as they come.

First, we find recorded the purple bladderwort, *Utricularia purpurea*, Walt., at Long Pond, a charming plant to find anywhere. The locality has totally disappeared, — as has the pond itself, though up to my time it was still excellent collecting ground. Its site is now given over to *Lactuca Scariola*, L., and threats of the Russian thistle! It is possible that this bladderwort may still be found at Little Benedict Pond near by — a most delightful hole, full of *Brasenia peltata*, Pursh, *Nymphaea odorata*, Ait., *Nuphar advena*, Ait., and various *Sagittariae*, *Spargania* and *Myriophylla*. Near by grew, and perhaps still grows, *Coreopsis rosea*, Nutt., which my father records as "abundant" in 1828, at Long Pond. My only certain locality for it now is near Pawtucket, where it is accompanied by *Eupatorium hyssopifolium*, L., *Utricularia purpurea*, Walt., *Aster spectabilis*, Ait., and other nice things.

Circaea alpina, L., is recorded from Providence, without special locality, and Iris prismatica, Pursh, from Seekonk, in what is now East Providence. The latter is abundant there still. In the old canal, long since abandoned even before my day, is noted Rhyncospora alba, Vahl, and at Leonard's Pond, R. glomerata, Vahl. Anthoxanthum odoratum, L., is dated "Providence, April 12, 1828." It is one of our

I Since this was written a careful exploration fails to find it.

commonest grasses giving the delicious odor to new-mown hay. We also have *Hierochloa borealis*, Roem. & Sch., but these old notes do not record it.

It is interesting to learn that *Symplocarpus foetidus*, Salisb., turned up March 8, 1828 — a good average record. We can fancy how glad those young collectors, all now passed away, were to welcome its parti-colored hoods!

At the other end of the season we find Hamamelis Virginica, L., marked as occurring in Tifft's woods, a location which I fail to identify. Buck-bean grew then where even now it flourishes — this year perhaps for the last time — near the Friends' School. This is by far the best locality for Menyanthes I have ever known. I think it is within our city limits, also in the suburb of Cranston. Cat Swamp is being drained and filled in so that Menyanthes trifoliata, L., must disappear, with the Typhas. Acorus Calamus, L., and many splendid Carices, among them the one called Olneyi, Boott., which, however, does not seem to stand. I have a letter from Hart Wright of years ago questioning its stability, and I think L. H. Bailey and others have merged it with an old species. Happy those whose monuments can survive a generation!

The bind-weed, Convolvulus sepium, L., is described as occurring on the banks of the "Providence Canal" near Horton's Grove, July, 1830. This old abandoned canal, extending from Providence to Worcester, early had its commercial usefulness destroyed by the rail-road between these two cities. Thereafter it became largely choked with aquatics and lawsuits to the mutual joy of the botanist and lawyer. So, some few years since, when my assistants, Messrs. J. Franklin Collins and Haven Metcalf desired some Elodea Canadensis, Michx., for physiological work, I directed them to find it in the canal—which they did. I had not seen it myself!

The Jersey tea, *Ceanothus Americanus*, L., is simply noted as from Providence — and still grows in the municipality. One marvels if in 1828 the rose-bugs came too! Now-a-days the plant is always thronged with them.

Under Viola pedata, L., the most abundant and most beautiful of our Rhode Island violets, adopted by the school-children as the state-flower (which — for obvious reasons — Rhododendron should be!), is noted in pencil — "Variety velutina, has two of its petals very dark purple and velvet-like." This is the variety bicolor, Pursh, of to-day —

which I myself have never seen. The late George Thurber once wrote me that in cultivation it became as large and handsome as a pansy.

Two localities of the butterfly-weed, Asclepias tuberosa, L., are given, and are interesting as carrying this plant so far back in our Rhode Island record. There has been a modern belief that it was introduced from the West. My father's localities are "Utacognut Hill" to-day called "Neuticonquinut," and North Providence. The last is very indefinite. It occurs to-day from Manton to Kingston. Gentiana crinita, always a special favorite of my father's, is noted as growing in Providence near the Friends' School, a still possible locality, the days of which are limited. However, fortunately there are a number of other spots. Hydrocotyle umbellata, L., grew at Mashapaug Pond. I wonder if it does now! It is a plant that I associate with more distant localities, say in South Kingston and Little Compton. Another umbellifer, Crantzia lineata, Nutt., is recorded as abundant near Providence. No doubt it still is. It is a plant that is, as Mr. Mantalini would say, "demd damp, moist, and unpleasant," and one has to search for it in muddy, oozy flats at low tide. Indeed, I often gauge a man's enthusiasm for field-work by the number of aquatics he has pulled in. It takes pluck to study Potamogeton, Naias, Zannichellia Zostera, and the like.

The Grass-of-Parnassus, Parnassia Caroliniana, Michx., bears the legend "Banks of the Woonasquatucket." This is one of the two rivers originally flowing into the cove in the middle of Providence, and there uniting to form the so-called Providence river, into which the Seekonk also flows. The latter is the continuation of the Blackstone below Pawtucket. An additional locality for the last plant is "Near Centre Hotel, August 31, 1830." The long-leaved sundew, Drosera intermedia, Hayne, var. Americana, DC., is recorded as Drosera longifolia, L. It occurred in a swamp near the Douglas turnpike, "about four miles from Providence." This may now be in the city limits. The Turk's-cap lily, Lilium superbum, L., grew, as it has till recently, in Moses Brown's meadow, viz. in the region between Angell Street, and Cat Swamp; the red lily, L. Philadelphicum, L., from the same locality, where I, too, have always found L. Canadense, L. My father, however, notes the latter from "Trip-town, R. I."

Then, as now, Medeola Virginiana, L., flourished in "The Grotto." In my day it has been equally abundant in the ravine in Blackstone Park and the grove to the east of the Metcalf Botanic Garden of Brown

University. Indeed, our University is very fortunate to obtain on its own ground so many desirable wild plants. It is a plot of very diverse soil and moisture, now being properly laid out and planted.

The nodding *Trillium* has "The Grotto" as a station. This is the very beautiful ravine and stream so long included in the estate of the Butler Hospital for the insane.

Of *Rhododendron maximum*, L., my father writes — "Said to grow in Attleboro." Query — *does it?* Did he not know then, as he certainly did later, of the magnificent growth of it at Wickford and in South County?

Cassia Chamaecrista, L., abounds in the sandy regions of Rhode Island quite up to the city. The smaller species, C. nictitans, L., not included in Bigelow's book — though surely it grows in Massachusetts — is mentioned as occurring in abundance near Mashapaug Pond. It is curious to read the description in pencil, "July, August. Spreading, pubescent. Leaves in many pairs, linear; glands of the petiole pedicelled; peduncles short, supra-axillary. 2- or 3-flowered." Cassia Marilandica, L., grew in plenty about "Moses Brown's meadows," — my own original locality, found years after, without consultation with this record. These localities about Moses Brown's old farm should be especially noted, for the city is fast encroaching upon them. Where less than ten years ago were open fields, and grassy lanes, are now curbed streets and numerous cottages. Sewers, too, are draining the entire region.

Rhodora is not mentioned as from Rhode Island, nor is Moneses grandiflora, Salisb., now both known to occur. Indeed, Rhodora grew within my own active collecting period in what is now the tenth ward of the city. Moneses is found in Smithfield. My father has no record, either, of S. F. Olney's locality for Linnaea borealis, L., the only one ever known in the State, near Silver-spring bleachery. The station has been obliterated some twenty years. If any one knows of another, he is requested to speak up.

The white Indian-pipe, *Monotropa uniflora*, L., is checked as from "Tifft's woods." Among the crow-foots is found *Ranunculus Cymbalaria*, Pursh, where I have myself always found it, along the Seekonk, date, August, 1834. Thirty-two years between the dates of record of father and son.

The scarlet painted cup, Castilleia coccinea, Spreng., is growing scarce near the city. In those old days it occurred at Trip-town.

Epiphegus Virginiana, Bart., grew as in our own time, in "The Grotto." I would extend the finding to almost any beech-grove in the State. The only Gerardia recorded is G. tenuifolia, Vahl., as found near the Woonasquatucket river, Aug. 14, 1830. This does not necessarily mean within the city, though even now it is abundant at a place remote from that cited, viz., beyond Cat Swamp. It is rather curious that there is no mention of the four or five others, including maritima, all within the lines of our city.

The localities of Orchids are always interesting. We find *Habena-ria blephariglottis*, Torr., turning up in those days at Mashapaug Pond, and — still more interesting — "near Sandy Bottom at the head of Providence Cove, August, 1830." Fancy it now, ye loiterers at the new station, which occupies the position of the once limpid — and later, putrescent — Cove! This beautiful native grew on a spot now defiled by ashes and garbage — and where toil the Italian scavengers, neither do they spin!

Habenaria lacera, R. Br., is marked "Dyer's pasture"—a location I fail to identify—and H. psycodes at Trip-town. This local name has also vanished from the map. Where, too, were "Tifft's woods" then the home of H. fimbriata, R. Br.? In my time it has occurred in Olneyville. Arethusa bulbosa, L., I am delighted to note, was observed in Cat Swamp, June, 1832. It was true to this record certainly as late as 1890. Pogonia ophioglossoides, Nutt., was always found there, but there is no check against P. verticillata, Walt., a choice orchid, which still turns up in town. Some years it is brought me by a number of people, — and from various stations.

Of course the lady's slipper, Cypripedium acaule, Ait., was prevalent, as it is now, in all sandy woods. It prevails especially in the tenth ward, formerly in the town of North Providence. The locality given for Corallorhiza odontorhiza, Nutt., is "The Grotto."

In 1830 wild rice, Zizania aquatica, L., grew, as it still does, "in the wet land at the head of Providence Cove, where its tall reed-like stems, swaying in the wind, and its feathery plumes, are fair to see.

Under Myriophyllum procumbens — what is it now? — my father has this note, "Leonard's Pond, N. Providence, fence leading from a white house on the Louisquisset Turnpike, strikes the shore of the pond at a spot where the M. p. grows abundantly, August, 1837." Probably of the items here mentioned, pond, town, house, fence, road and plant; only the road and the pond survive. However, the plant

may, perhaps, be found there, being an aquatic and not subject to certain topographic disturbances, which would extinguish all things terrestrial.

While little is said about Lycopods and ferns — we find this intensely interesting note concerning Lygodium palmatum, Swartz., my own station for which is South Scituate, R. I.

"Lygodium palmatum — abundant on banks of Tar Kiln River, near Douglas Turnpike, R. I., July 4, 1834." It would be well worth while to look up this long-forgotten locality — and then, in the interests of science, again to forget it!

BROWN UNIVERSITY.

## DICKSONIA PILOSIUSCULA, var. CRISTATA.

GEORGE E. DAVENPORT.

Having recently visited the type station for *Dicksonia pilosiuscula*, Willd., var. **cristata** (*Daenstedia punctilobula cristata*, Maxon) in company with Mr. F. G. Floyd, who first brought this fern to notice, I have been able gradually to recall quite clearly the circumstances under which I saw it for the first time in 1873. I had not at that time taken up the study of ferns, but was more interested in the flowering plants, consequently I did not pay that attention to this form of the Dicksonia that I otherwise should have done, and the circumstance itself passed out of my mind until Mr. Floyd's discovery recalled it.

I had been botanizing on the Great Blue Hill in company with the late veteran botanist, Mr. E. H. Hitchings, and, while following one of the brook ravines down from the summit of the hill, we came across this patch of bifid and crested Dicksonia. I now recall very clearly our stopping sometime to look at it, and commenting on the somewhat unusual occurrence, but, as we were after other things, and as neither of us at the time had any special interest in ferns, we made no collection of it, and I imagine it passed out of Mr. Hitchings' mind as it did out of my own.

The variation is interesting and difficult to account for. The plants are restricted to a small area, and the variety is intermixed with the normal form in such a manner as to suggest their both being attached to the same rootstock. Mr. Floyd and I, however, took up